

109-2-1-14/17

An Instrument for Relative Measurements of Alternating Magnetic Fields

square pulse opens a tube integrator whose output is indicated by an indicating instrument. One field pickup and the velocity pickup are stationary; the second field pickup can be moved in the magnet gap. The field value sensed by the second pickup may be higher or lower than that at the point of the first pickup. The field non-uniformity sign is indicated by a special circuit. Some parts data and parameters of the high-frequency oscillator, field and velocity pickups, sign circuit, and integration circuit, are presented. Calibration of the instrument is explained. The overall error of the instrument is evaluated analytically and found to be equal to $\pm 3\% H_{\max}$. The error of absolute field measurements is about 0.1%. The instrument was tested with the AS USSR proton-synchrotron, and the results of the measurements were found to precisely agree with those given by the ballistic-galvanometer method when an allowance for the residual field was made for the latter. Advice is offered for quick measurement of monotonic space-changing magnetic fields by means of a number of field pickups and an electron oscillograph. The authors are grateful to Professor V. A. Petukhov for his remarks in discussing the work and to A. N. Zinevich for his

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109-2-1-14/17

An Instrument for Relative Measurements of Alternating Magnetic Fields

part in building the instrument.

There are 7 figures and 4 references, one of which is Soviet, in the article.

ASSOCIATION: Fizicheskiy institut imeni P. N. Lebedeva AN SSR (the Institute of Physics imeni P. N. Lebedev, AS USSR)

SUBMITTED: June 1, 1956

AVAILABLE: Library of Congress

1. Magnetic fields--Measurement
2. Laboratory equipment--Performance

Card 4/4

SHPIGEL', I.S.; RAYZER, M.D.; MYAE, E.A.

Effect of detuning magnitudes on amplitude of the first harmonics of nuclear magnetic resonance absorption. Zhur. tekhn. fiz. 27 no.2:351-354 1957. (MLBA 10:4)

1. Fizicheskiy institut im. P.N. Lebedeva AN SSSR, Moskva.
(Nuclear magnetic resonance) (Oscillators, Electron-tube)

MYAE, E.A.

SHPIGEL', I.S.; RAYZER, M.D.; MYAE, E.A.

Sensitivity of oscillators in self-excitation conditions. Zhur. tekhn. fiz. 27 no.2:387-390 F '57. (MIRA 10:4)

1. Fizichskiy institut im. P.N. Lebedeva AN SSSR, Moskva.
(Oscillators, Electron-tube) (Nuclear magnetic resonance)

5/089/60/009/006/007/011
B102/5212

2/2000
A/No 153P

AUTHORS: Patukhov, V. A.; Gabanets, I.; Zhuravlev, A. A.; Karamzin, M.; Kotoy, V. I.; Myas, E. A.; Obukhov, Yu. L.; Sokhor, V.; Taitrak, Yu.; Sereb, V.; Dobiash, I.; Marek, M.; Pumatko, T.; Svetov, L. V.

TITLE: The model of the ring proton synchrotron

PERIODICAL: Atomnaya energiya, v. 9, no. 6, 1960, 491-495

TEXT: The ring proton synchrotron which is a powerful focusing accelerator with a magnetic field constant with respect to time, has been suggested in 1953 by A. A. Kolomoisky, V. A. Patukhov, and M. S. Rabinovich and, independently of them, in 1955 by Synon (Phys.Rev. 22, 1152 (1955)). The new device seems to be able to produce very intensive accelerated-particle beams. A model of this ring synchrotron (with radial sectors) has been constructed in the Ob'yedineny Institute Yadernykh Issledovaniy (Joint Institute of Nuclear Research). The electromagnet consists of eight elements arranged periodically, each of which has a direct and an inverse sector; it also has two straight sections. The azimuthal

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The model of the ring...

dimension of the direct sector, which focuses the beam in radial direction, is 22.30° , and that of the inverse sector, which brings about the vertical focusing, is 7.30° . The inverse sectors cause the orbital perimeter of the ring synchrotron to be bigger than that of a standard strongly focusing accelerator. The ratio of the maximum radius of the orbit to the minimum radius of curvature is approximately equal to 3. The coils generating the field are arranged such that the magnetic field increases with the radius of the orbit according to $H = H_0(1 + k_0 \frac{r}{R_0})$, i.e., it increases from 42 oe at $R = 35$ cm to 340 oe at $R = 53$ cm. The magnet exhibits the characteristic that the gap between its poles increases in proportion to the gap radius. Therefore, the vertical dimensions of the working area will also change from 2 to 4 cm. The increase of all geometrical dimensions of the sectors and the constancy of the field index k (the field index of the model is equal to 4) bring about a dynamic similarity of the orbits, and the frequency of the free oscillations will also be constant. The number of betatron oscillations per circulation may be varied from 1 to 3 in the vertical direction, and from 2.5 to 3.5 in the radial direction. The model is especially suited for

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B102/5212

The model of the ring...

electron acceleration; the injection (of 20-40 kev electrons) may be done continuously or in a pulsed manner. The acceleration is done with an electric rotational field having a voltage of 10 to 20 kV per circulation and a frequency of 450-500 cps. The first test results obtained from this unit showed that it is very sensitive with regard to parameters from this collection and the stability of the principal characteristics. There are 2 figures and 7 references to English literature and 2 non-Soviet-blou k. Synon. Phys.Rev. 22, 1152 (1955); T. Ohkawa, Rev.Scienc.Instrum., 29, 106 (1956).

SUBMITTED: May 26, 1960

Card 3/3

ZHURAVLEV, A.A.; IVANOV, I.N.; KARMASIN, M.; KOTOV, V.I.; MYAE, I.A.;
OBOZNYI, V.A.; OBUKHOV, Yu.L.; PETUKHOV, V.A.

[Motion of particles in an annular synchro-cyclotron] Issledovanie
dvizhenia chastits v kol'tsevom fazotrone. Dubna, Ob'edinennyi in-
tadernykh issl., 1961. 24 p. (MIRA 14:12)
(Synchrotron)

MYAE, E A.

9

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al. 2456, 2606

26870
2/030/61/000/004/005/005
L256/0305

AUTHORS:

Petukhov, V.A., Habanec, J., Zauravliv, A.A., Karmanin, M.,
Kotov, V.J., Myae, E.A., Obukhov, J.L., Sochor, V., Cirák,
J., Benda, F., Dobišák, J., Marek, M., Fukáto, T., Švetov, L.

TITLE:

A model of an annular cyclotron

PERIODICAL:

Jaderná energie, no. 4, 1961, 156 - 157

TEXT:

This is a translation of an Russian article entitled "Model' kol'tsevoġo fazyotrona" (Model of an Annular Cyclotron) originally published in the Soviet periodical "Atomnaya energiya", 9, (1960), no. 12, pp 491-493. It deals with the model of an annular cyclotron which is a fixed-field, alternating-gradient accelerator, built by Soviet and Czechoslovak physicists at the United Institute of Nuclear Research in Dubna. The proposal for an annular cyclotron was made for the first time in 1955 by A.A. Kolomenskiy, V.A. Petukhov and M.S. Habinovich (Ref 1: Nekotoryye voprosy teorii tsikli-cheskikh uskoriteley (Some Problems of the Theory of Cyclic Accelerators), AN SSSR, 1955; Prihory i tehnika experimenta (1956), no. 2, p. 26). The elec-
Card 1/2

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26850
Z/038/61'000/004/005/005
D238/D30

A model of an annular cyclotron

tromagnet of the accelerator consists of eight similar, alternately reserved parts, each of which has two sectors with opposite orientation of the magnetic field, and two straight sections. The accelerator is used for electron acceleration. Electrons with energies of 20-40 keV can be injected either continuously or in pulses. Using a combination of eddy and radio-frequency fields, a beam energy up to 2MEV can be obtained with this model. Preliminary results obtained during test runs have shown the high accuracy of the machine and the great stability of its principal magnetic characteristics. Also, in agreement with the theory, a number of various resonances was observed which have a substantial influence on the intensity of the accelerated beam. There are 2 figures and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: K. Symon, Phys. Rev. 98 (1952), 1152; T. Okhawa, Rev. Scient. Instrum. 29, (1958), 108.

Card 2/2

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25790
S/057/61/031/010/013/015
B111/B112

24.5.730

AUTHORS:

Benda, F., Gabaneto, I., Dobrash, I., Zhuravlay, A. A.,
Karmasin, M., Kotov, V. I., Marek, M., Myag, E. A., Obukhov,
Yu. L., Petukhov, V. A., Svetov, L. V., Sokhor, V., Fukatko,
T., and Tsirak, Yu.

TITLE: Annular proton synchrotron with radial sectors

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 10, 1961. 1253-1261

TEXT: This article describes the model of an annular proton synchrotron with radial sectors, built and put into operation at the Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research).

Technical data:

Number of periodicity elements	8
Azimuthal dimensions of a direct sector	22°30'
Azimuthal dimensions of an inverse sector	7°30'
Azimuthal dimensions of the gap	7°30'
amplification factor	~ 3
Initial radius	35 cm

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 B111/B112

Annular proton synchrotron with ...

Final radius	59 cm
Vertical dimension of the chamber for the initial radius	3 cm
Coefficient k for which $H = H_0 (r/r_0)^k f(\theta)$	4
Field strength in the initial radius	~ 42 oe
Field strength in the final radius	~ 340 oe
Injection energy	20 - 40 kev
Critical energy (total)	1.12 Mev
Final energy (total)	~ 2 Mev

The frequencies of free particle oscillations were found to be $\nu_x \approx 3.1$ and $\nu_z \approx 1.8$, which are lower than the theoretical value. The machine can also be used for studying the behavior of the particle beam and its accumulation. A cross-sectional view of the electromagnet is shown in Fig. 1. A pressure of $1 - 2 \cdot 10^{-6}$ mm Hg prevailed in the vacuum chamber. The injection system is designed both for pulsed and continuous operation. Acceleration is effected by an electric rotating field of 500 cps and 10 - 25 v per revolution. A special "speed up" system (rotating field of 600 v per revolution) serves for improving the electron-capture efficiency.

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S/057/61/031/0:0/013/015
B111/B112

Annular proton synchrotron with ...

The pulse, which is excessively increased by the "speed up" process, is reduced by a thyatron circuit. A constant value of k could be attained with a theoretically calculated arrangement of the field coils along the ideal orbit. In addition to the principal coils, a coil was placed at the yoke of each sector, by which the influence of the iron resistance was eliminated. k and the azimuthal field distribution were measured with induction coils and a ballistic galvanometer. With a few exceptions, the values of k agreed with theoretical values to within $\pm 1\%$. The azimuthal inhomogeneity of the field was never greater than $\pm 1\%$. The position of the magnetic surfaces was determined with Permalloy feelers with an error of 0.2 mm. The deviation from the theoretical values was never greater than 0.5 mm. The indication of the beam during the first revolutions (without acceleration) was carried out with screens and coordinate nets in the chamber, and later (with acceleration) with photomultipliers equipped with radially adjustable sets of targets. The measurements showed that the field is strongly affected by the induction and "speed-up" core (e.g., azimuthal inhomogeneity). It was found that under optimum conditions, the upward deviation of the beam from the center of the chamber did not exceed ± 4 mm, and that the deviation of the equilibrium

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X

Annular proton synchrotron with . . .

2872
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B:11/B:2

orbits at one and the same point of the magnetic field was 25 mm per revolution. It is noted that this model can be used to study resonances with free oscillations, electron capture into a betatron system, and accumulation of accelerated particles. Yu. A. Chernyshev, A. Grachev and R. N. Fedorov are thanked for assistance. There are 6 figures, 1 table, 9 references: 4 Soviet and 5 non-Soviet. The three most recent references to English-language publications read as follows: Ref. 7: T. Ohkawa, Rev. Sci. Instr., 29, 108, 1958. Ref. 8: F. T. Cole et al., Rev. Sci. Instr., 28, 403, 1957. Ref. 9: K. M. Terwilliger et al., Rev. Sci. Instr., 28, 987, 1957.

SUBMITTED: December 6, 1960

Fig. 1: Cross-sectional view of electromagnet and vacuum chamber.
Legend: (1) magnet; (2) chamber; (3) principal coils of magnet; (4) yoke coils.

Card 4/5₁

611

ZHURAVLEV, A.A.; KOTOV, V.I.; MYAE, E.A.; OBOZNYI, V.A.; SARANTSEVA,
V.R., tekhn. red.

[Method for electron acceleration in a circular synchro-
cyclotron] Ob odnom metode uskoreniia elektronov v kol'tse-
vom fazotrone. Dubna, Ob"edinennyi in-t iadernykh issl.,
1962. 11 p. (MIRA 15:4)

(Synchrotron)

44436

S/120/62/000/006/002/029
E032/E114

AUTHORS: Zhuravlev, A.A., Kotov, V.I., Myae, E.A., and
Oboznyy, V.A.

TITLE: On a method of accelerating electrons in an annular
synchrocyclotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1962, 18-21

TEXT: In the annular synchrocyclotron of the Ob'yedinenny
institut yadernykh issledovaniy (Joint Institute for Nuclear
Research) (F. Benda, I. Gabanets, I. Dobiash, A.A. Zhuravlev et al.,
Zh. tekhn. fiz., v.31, 1961, 1253) the electrons are accelerated
by a combination of an induced electric field and a high-frequency
field of constant frequency. The induced electric field
communicates about 9 eV per revolution to the electrons and is
produced by changing the magnetic flux through the vacuum chamber
at the rate of 500 c.p.s. The h.f. field is applied over a
section of the vacuum chamber having an angular width of 30° and
insulated from the remainder of the chamber. The h.f. field is
produced by an oscillator described in detail by V.A. Petukhov,
I. Gabanets, A.A. Zhuravlev, M. Karmasin et al. (Preprint 572,
Card 1/2

On a method of accelerating electrons... S/120/b2/000/00b/002/029
E032/E114

1960, OIYal, Dubna). The function of the h.f. field is to maintain the electrons in the stable orbit and compensate the retarding effect of the electric field which is produced when the magnetic flux changes sign, so that the accelerated bunch remains at a constant radius. The h.f. field is switched on at the end of each cycle of the induced field and then switched off as soon as the next cycle begins. The h.f. pulse is switched off just before the beginning of injection, so as to exclude the effect of the h.f. field on the capture of electrons into the inductive acceleration regime. Experimental tests carried out on the machine have yielded results which are in agreement with theoretical calculations based on the work of K.R. Symon and A.M. Sessler (CERN, Symposium, v.1, 1956, 44). There are 6 figures.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy
(Joint Institute for Nuclear Research)

SUBMITTED: February 20, 1962

Card 2/2

44437

S/120/62/000/006/003/029
E032/E114

2 67 D

AUTHORS: Zhuravlev, A.A., Kotov, V.I., ~~Myae, E.A.~~
Oboznyy, V.A., Obukhov, Yu.L., and Fisher, E.

TITLE: The capture of electrons into the inductive
acceleration regime in the annular synchrocyclotron

PERIODICAL: Pribery i tekhnika eksperimenta, no.6, 1962, 21-24

TEXT: The authors report a series of experimental results on
the capture of electrons into the inductive acceleration regime in
a new type of accelerator, namely, the annular synchrocyclotron.
The conditions of capture of electrons in this accelerator differ
from those in a betatron (time independent magnetic field,
strong focusing). The experiments were carried out on the annular
synchrocyclotron of the Ob'yedinenenny institut yadernykh
issledovaniy (Joint Institute for Nuclear Research) which was
described by P. Benda, I. Gabanets, I. Dobiash, A.A. Zhuravlev
et al. (Zh. tekhn. fiz., v.31, 1961, 1253). In the first series
of experiments a determination was made of the number of
accelerated electrons as a function of the number of electrons
completing the first orbit. The second series of experiments was
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The capture of electrons into the ...

S/120/62/000/006/003/029
E032/E114

concerned with the effect of the radial distance Δ from the centre of the cathode to the edge of the injector, on the capture process. In all cases the measurements were carried out with and without "forcing", i.e. the presence of an additional induced electric field (c.f. the reference quoted above). The results were as follows: the electron capture coefficient in the single electron capture region was 0.5%, and in the collective capture region 2.5-3.5%. It was also found that the magnitude of Δ in the presence of "forcing" may be increased to 3.5, while in the absence of "forcing" the effect of Δ on the number of captured particles becomes significant at lower values of Δ . Finally, a plot was obtained of the number of captured particles as a function of the position of the "forcing" pulse relative to the centre of the injection pulse. It was concluded from the form of this curve that the optimum capture conditions correspond to the tail of the injection pulse. There are 5 figures.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Joint Institute for Nuclear Research)

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SUBMITTED: February 20, 1962

44438
S/120/62/000/006/004/029
E032/E314

24-1780

AUTHORS: Nyae, E.A. and Uboznyy, V.A.

TITLE: Apparatus for high-frequency excitation of free oscillations in the annular synchrocyclotron

PERIODICAL: Pribory i tekhnika eksperimenta, no. 6, 1962, 25-28

TEXT: The free oscillations were excited in the annular synchrocyclotron (V.A. Petukhov et al - reprint OIYaI, 1960, 572, Dubna; Atomnaya energiya, 1960, 9, no. 6, 491; Zh. tekhn. fiz., 1961, 31, 1253) by applying a high-frequency electric field to a pair of molybdenum plates, 20 x 50 mm², placed above and below the accelerated beam. A special high-frequency oscillator with a working range of 5 - 60 Mc/s was employed. Calculations showed that when the distance between the plates was 2 cm, the required signal voltage was about 100 V. In practice, the high-frequency signal was modulated by a square-wave signal to ensure sharp resonance. A special square-wave generator was developed for this purpose. In order to determine the number of free oscillations per revolution in the synchrocyclotron, a determination was made of the frequencies of the high-frequency field at which a build-up

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Apparatus for high-frequency S/120/62/000/006/004/029
E032/E314

of these oscillations occurred. Graphs of the amplitude and time-shift of the accelerated beam, as functions of the forcing signal, were obtained under various working conditions. It was found that the number of free oscillations in the vertical and horizontal planes could be determined to about 0.5%. Typical resonance curves are reproduced, together with the basic circuits for the high-frequency resonator and the square-wave generator. There are 4 figures and 1 table.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Joint Institute for Nuclear Research)

SUBMITTED: February 20, 1962

Card 2/2

39811
S/057/62/032/008/001/015
B104/B102

AUTHORS:

Zhuravlev, A. A., Ivanov, I. N., Karmasin, M., Kotov, V. I.,
Myae, E. A., Oboznyy, V. A., Obukhov, Yu. L., and Petukhov,
V. A.

TITLE:

Study of the particle motion in a ring synchrotron

PERIODICAL:

Zhurnal tekhnicheskoy fiziki, v. 32, no. 8, 1962, 905 - 913

TEXT:

The perturbed equation of free particle oscillations in a synchrotron (ZhTF, no. 10, 1253, 1961) is derived in the following form:

$$\xi + (A_{0\xi} + A_{1\xi} \cos N\theta + A_{2\xi} \cos 2N\theta) \xi = (\delta F_{0\xi} + \delta F_{1\xi} \cos N\theta + \delta F_{2\xi} \cos 2N\theta) \Delta x. \quad (10)$$

ξ is the deviation of the particles from an orbit,

$$\delta F_{1\xi} \approx -ar_1 [1 + (k+2)q_1 \cos N\theta] \Delta f(0),$$

and

$$\delta F_{2\xi} \approx (A_{0z} + A_{1z} \cos N\theta + A_{2z} \cos 2N\theta) \Delta z(0),$$

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B104/B102

Study of the particle motion...

characterize the deviations in radial and vertical direction, $\Delta r(\theta)$ describes the deviations from the ideal field distribution. The general solution of this equation leads to the equation for the disturbed orbit and to a study of the distortions that arise when disturbances occur in some sectors of the synchrotron. Such distortions were determined experimentally with the aid of seven special targets built into the accelerator chamber. Good agreement was obtained between experimental and theoretical results. The equation of motion $\ddot{\xi} + v_{\xi}^2 \xi = F$, which holds if an external force F (electrical field strength ξ) exists, producing a forced oscillation, is

$$F = \frac{e\delta c^2}{\omega_0 E} \cos\left(\frac{\Omega}{\omega_0} \theta + \gamma_i\right) \delta(\theta - \theta_i), \quad (15)$$

(uniform field with azimuthally localized action), furnishes

$$\xi(\theta) = \frac{e\delta c^2}{2\pi\omega_0 E} \sum_{i=1}^N \frac{e^{i(\Omega/\omega_0 \theta + \gamma_i + j(\theta - \theta_i))}}{v_{\xi}^2 - (\frac{\Omega}{\omega_0} + j)^2} \quad (16)$$

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Study of the particle motion...

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B104/B102

Resonance with the free oscillations occurs at frequencies of the external field that satisfy the conditions $v_{\xi}^2 - (\frac{\Omega}{\omega_0} + j)^2 = 0$ (Ω - circular frequency of ξ ; φ_i - initial phase; ω_0 - particle revolution frequency; θ_1 - azimuth at which the h-f field acts; E - particle energy). The resonances were excited with the aid of two plates, one above and one below the beam to which the high-frequency voltage (5 - 60 mcps) was applied. Vertical and radial oscillations of the beam could be excited. The intensity distributions of the beam under different operational conditions and with different frequencies of the voltages applied to the plates were studied. There are 4 figures and 1 table.

SUBMITTED: July 28, 1961

Card 3/3

MYAEMETS, A. Kh.

Cand Biol Sci - (diss) "Water fleas (Cladocera) of the Estonian SSR. (Faunal-ecological survey)." Tartu, 1961. 24 pp with diagrams; (Academy of Sciences Estonian SSR, Division of Biological and Medical Sciences); 300 copies; free; (KL, 5-61 sup, 184)

MYAEMETS, A.Kh. [Maemets, A.]; VILDER, I.k.

Qualitative composition of the fauna of planktonic crustaceans
in Iedera Bay. Trudy VESi no.6:3-11 '64. (1964)

1. Ikhtologicheskaya laboratoriya Estonskogo otdeleniya Baltiyskogo nauchno-issledovatel'skogo instituta morskogo rybnogo khozyaystva i okeanografii.

L 24903-65 ENG(j)/ENG(r)/EWT(1)/FS(v)-3/ENG(v)/ENG(a)/ENG(c) Pb-4/Pe-5 DD

ACCESSION NR: AR4047773

S/0299/64/000/018/G004/G005

SOURCE: Ref. zh. Biologiya, Svodnyy tom, Abs. 18028

AUTHOR: Myatalu, Kh. I.

TITLE: Qualitative change in photosynthesis of apple leaves during vegetation

CITED SOURCE: Fiziol. rasteniy, v. 11, no. 1, 1964, 13-19

TOPIC TAGS: apple tree, photosynthesis, radioactive carbon, organic acid, amino acid, protein

TRANSLATION: Leaves cut from 8 yr old Antonovka apple trees, grown in an orchard of the Estonian Agricultural Academy, were photosynthesized in plexiglass chambers in the presence of $C^{14}O_2$ with a 1% carbon dioxide concentration in the chamber and a specific radioactivity of 55 microcuries per 1 millimole of CO_2 . Photosynthetic exposure was 10 min. During the blossoming period, 78-82% of the radioactivity accumulated in the sugars, 7-10% in the organic acids, and 8-9% in the amino acids; during the entire vegetation period,

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ACCESSION NR: AR4047773

1.5-5% of the C^{14} accumulated in phospho-sugars. During the intensive growth of the shoots, 41-60% radioactivity was found in the sugar of the shoots, 18-21% in the organic acids, and 22-36% in the amino acids. After intensive growth of shoots stopped, which is related to depletion of nitrogen reserves in the tissues, the radioactivity ratio of the sugars on one hand and of the organic acids and amino acids on the other hand again shifted in favor of the sugars. It was noted that amino acids and organic acids tend to synthesize more actively in the evening and morning hours and sugars in the afternoon hours. Institute of Plant Physiology AN SSSR, Moscow. Bibliography, 22 titles. V. Rhodos

SUB CODE: LS

ENCL: 00

Card 42

MYAGCHENKO, V., mayor

Aligning on communists. Komm.Vooruzh.Sil 4 no. 20:58-60
0 '63. (MIRA 17:5)

L 1351-63
RM/W

EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-l/PC-l/Pr-l

ACCESSION NR: AP3000701

8/0190/65/005/005/0724/0728

74
72

AUTHOR: Myagchev, V. A.; Kuznetsov, Ye. V.; Ishakov, O. A.; Lushkina, V. M.

TITLE: Fractionation of methylmethacrylate-methacrylic acid copolymer and the properties of the fractions

SOURCE: Vysockomolekulyarnyye soedineniya, v. 5, no. 5, 1963, 724-728

TOPIC TAGS: fractionation, copolymers, methacrylate, methacrylic acid, macromolecules, 14

ABSTRACT: The purpose of the present investigation consisted in a study of the physical and chemical characteristics produced in copolymers of methylmethacrylate-methacrylic acid by varying its composition. To this end, a copolymer was produced by heating for 40 hours at 45C a mixture of 9.75% methacrylic acid, 90.2% methylmethacrylate, and 0.05% lithium methacrylate with the addition of an initiator. The obtained copolymer was dissolved in acetone, from which fractions were precipitated by a 2:1 mixture of hexane-dichloroethane. These were dried, and their properties studied by viscosimetry and spectroscopy. The examination of the fractions of the copolymer gave an identical methacrylic acid content of 7.4%, the 92.6% balance being accepted as methylmethacrylate. The constants K and a of the Staudiger-Mark equation for a copolymer of the given composition in acetone were determined. It

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ACCESSION NR: AP3000701

was demonstrated that the addition of lithium methacrylate to the polymerizing mixture caused the reaction to proceed with the formation of a tertiary copolymer. Orig. art. has: 9 formulas, 5 figures, and 1 table. 2

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskii institut im. S. M. Kirova (Kazan' Institute of Chemical Engineering)

SUBMITTED: 05Nov61

DATE ACQ: 17Jun65

RECL: 00

SUB CODE: CH

NO REF SOV: 005

OTHER: 001

Card 2/2

MYAGCHENKOV, V.A.; LUZNETSOV, Ye.V.; KITKEVICH, V.Ya.

Concentration effect in the degradation of a series of polymers in dimethylformamide. *Vysokom.sped.* 6 no.8:1360-1370 Ag '64. (MIRA 17:10)

1. Kazanskiy khimiko-tekhnologicheskii institut imeni S.M.Kirova.

MYAGCHENKOV, V.A.; KLENETSOV, Ye.V.; DOMINGVA, N.I.

Viscosity of solutions of copolymer fractions of methyl methacrylate-methacrylic acid in organic solvents. *Vysokom.soen.* 5 no.9:1612-1616 S '64. (MIRA 17:10)

1. Kazanskiy khimik--teknologicheskii institut Kazanva.

L 46646-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AR6021267 (A) SOURCE CODE: UR/0081/66/000/004/S006/S006

AUTHOR: Myagchenkov, V. A.; Gibadullin, L. A.

TITLE: Thermomechanical investigations of a series of methyl methacrylate copolymers 50
B

SOURCE: Ref¹ zh. Khim, Part II, Abs. 4S31

REF SOURCE: Tr. Kazansk. khim.-tekhnol. in-ta, vyp. 33, 1964, 259-262

TOPIC TAGS: methacrylate plastic, thermal decomposition, heat property, copolymer, methylmethacrylate

ABSTRACT: The relationship between the glass temperature T_g and yield point T_y and the composition of a series of copolymers of methyl methacrylate and methacrylic acid (I) containing up to 20 mol % of the second component was examined thermomechanically. It was established that T_g and T_y increase linearly as the content of I increases, while the range of the highly elastic state remains almost constant. T_y for pure polymethylmethacrylate was calculated (370°) assuming additiveness of the contribution of I as its content is further increases. Direct evaluation of this value is impossible because of the low decomposition temperature of polymethylmethacrylate. Additions of up to 1% lithium

Card 1/2

L 45646-66

ACC NR: AR6021267

and potassium in the methacrylate system hardly change the characteristics of the given copolymer; this unequivocally indicates that the new component does not cause significant changes in its molecular weight. Yu. Panov. [Translation of abstract].

SUB CODE: 11, 20

Card 2/2 *egh*

MYAGER, V. K.: Master Med Sci (diss) -- "Functional cardiovascular disorders
in neuroses and their treatment". Leningrad, 1959. 17 pp (State Sci Res
Psychoneurological Inst im V. M. Bekhterev, Clinic of Neuroses and borderline
states), 200 copies (KL, No 5, 1959, 157)

MYAGER, V.K.

Functional cardiovascular disturbances in neuroses and their treatment.
Sbor. turd. Len. nauchn. ob-va nevr. i psikh. no.6:335-336 '59.

(MIRA 13:12)

1. Iz kliniki nevrozov i pograniichnykh sostoyaniy Psikhonevrolo-
gicheskogo instituta imeni V.M. Bekhtereva (nauchnyy rukovoditel'
otdeleniya i direktor instituta - chlen-korrespondent Akademii
pedagogicheskikh nauk RSFSR prof. V.N. Myasishchev).

(NEUROSES)

(CARDIOVASCULAR SYSTEM--DISEASES)

YAKOVLEVA, Ye.K.; BASKINA, N.F.; BOBROVSKAYA, M.N.; KRESLING, Ye.M.; MYAGER,
V.K.; SHKLYAROVA, E.D.; NIKOLAYEVA, K.N.

Use of hemohormonestimulin in the clinical aspects of neuroses. Akt.
vop.perel.krovi no.7:195-198 '59. (MIRA 13:1)

1. Klinika nevrozov i pogramichnykh sostoyaniy Gos.psikhonevrolo-
gicheskogo nauchno-issledovatel'skogo instituta imeni V.M. Bekhtereva
(direktor i nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR
prof. V.N. Myasishchev).

(HORMONES, SEX)

(NEUROSES)

SHATALOVA, A.A.; MYAGER, V.K.

Adrenalin and noradrenalin content of the blood and its dynamic
significance in neuroses. Zhur. nevr. i psikh. 60 no.10:1338-1341
'60. (MIRA 14:1)

1. Nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni
V.M. Bekhtereva (dir. - prof. V.N. Myasishchev), Leningrad.
(ADRENALINE) (ARTERENOL) (NEUROSES)

YAKOVLEVA, Ye.K.; BOBROVSKAYA, M.N.; KRESLING, Ye.M.; MYAGER, V.K.

Trioxazine therapy in the clinic for neuroses. Zhur.nevr.i
psikh. 62 no.8:1225-1227 Ag '62. (MIRA 15:12)

1. Klinika nevrozov i pograniichnykh sostoyaniy (zav. - doktor
meditsinskikh nauk Ye.K.Yakovleva) Nauchno-issledovatel'skogo
psikhonevrologicheskogo instituta imeni V.M.Bekhtereva (dir. -
kand.med.nauk B.A.Lebedev), Leningrad.
(NEUROSES) (OXAZINE)

MYAGER, V.K.; GOSHEV, A.I.

Correlation of adrenergic and cholinergic substances in some neurotic symptoms. Zhur. nevr. i psikh. vol. 64 no. 5:742-745 '64.

(MIRA 17:7)

1. Klinika nevroznoy (zaveduyushchiy - doktor med.nauk Ye.K.Yakovleva) i biokhimicheskaya laboratoriya (zaveduyushchiy - prof.A.A.Shatalova) Nauchno-issledovatel'skogo psikhonevrologicheskogo instituta im. V.M.Bekhtereva (direktor - kand.med.nauk B.A.Lebedev), Leningrad.

MYAGKAYA, G. L.

Glycine metabolism and purine biosynthesis in the liver of birds. G. A. Kritskii and G. L. Myagkaya (A. N. Bakh Inst. Biochem., Acad. Sci. U.S.S.R., Moscow). *Biohimiya* 21, 694-701(1958); cf. *C.A.* 51, 8633d. — The liver of the pigeon was used because the hypoxanthine synthesized in it did not become oxidized or split as it did in the liver of other animals. The isotope follow-up and paper chromatographic methods were employed. As the starting products in the purine biosynthesis use was made of glycine-1-C¹⁴ and of C¹⁴formic acid. For the selection of radioactivity in the chromatogram, the method of radiography was used in the majority of the tests. In isolated tests the radioactivity of the purine precursors, the pigeon liver homogenates were incubated with the substrates consisting of the initial agents used in the hypoxanthine biosynthesis. The methods are described by which the substrates were compounded. The radioactive substances which were formed from glycine-1-C¹⁴ in the homogenates of the pigeon liver were isolated and analyzed by paper partition chromatography. A considerable part of the C¹⁴ was found in malic, succinic, fumaric, and glycolic acids. These findings point to the fact that in the pigeon liver glycine metabolism is closely associated with the Krebs cycle. The C¹⁴ from glycine-1-C¹⁴ was also included in glutamic acid, glutamine, serine, alanine, and some unidentified fractions. During the incubation of the pigeon liver with C¹⁴formic acid a fraction designated as 5, and during the incubation with glycine-1-C¹⁴ fractions designated as 2a, 2b, and 9 were formed. The C¹⁴ was incorporated into these fractions. In the process of purine biosynthesis the ribodization of the purine precursors must be taking place.

9/16

R. S. Levine

MYAGKAYA, G.L.

Metabolism of glycine and synthesis of purines in pigeon liver. G. A. Kritskii and G. L. Myagkaya (A. N. Bakh Biochem. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 111, 398-400 (1956).—Incubation of pigeon-liver specimens with C^{14} -labeled glycine and C^{14} -labeled HCO_2H , along with adds. of glutamine, pyruvate, methionine, folic acid, phosphate buffer, KCl, $MgCl_2$, and $NaHCO_3$, 48 min. at 39-40° showed that much of the glycine is incorporated into malic, glycolic, succinic, and fumaric acids; the C^{14} from HCO_2H enters the purines, as does C^{14} from glycine. Ribosylation of purine precursors is an essential step in biosynthesis of purines. The substances were traced by paper chromatography. C^{14} activity was also detected in glutamic acid. Hypoxanthine was a precursor of nucleotides in the synthesis of the latter from elementary elements. G. M. K.

GORODSKAYA, G.I., MYAGKAYA, G.I.

Preliminary results of a study of bacterial proteoplasts [with
summary in English]. *Biul. eksp. biol. i med.* 46 no. 8: 93-97
Ag '58 (MIRA 11:10)

1. Iz otdela razvitiya zhivogo veshchestva (zav. - deystvitel'nyy
Chlen AMN SSSR O.B. Lepeshinskaya) Instituta eksperimental'noy
biologii (dir. - prof. I.N. Mayskiy) AMN SSSR, Moskva. Pred-
stavlena deystvitel'nyy chlenom AMN SSSR N.N. Zhukovym-Verezhnikovym.

(SALMONELLA,

protoplast form. in *Salmonella gallinarum* (Bus))

YAKOVA, G. B., TUSTANOVICH, A. A., GALLA, A. L., KHAVCHUK, . . .

"Embryogenetic Development of Collagen."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961.

TUSTANOVSKIY, A.A.; ZAYDES, A.L.; ORLOVSKAYA, G.V.; MYAGKAYA, G.L.

Development of collagen components in embryogenesis. Dokl. AN SSSR
138 no.4:962-965 Je '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut revmatizma Ministerstva
zdravookhraneniya RSFSR i Tsentral'nyy nauchno-issledovatel'skiy
institut koshevennoy promyshlennosti. Predstavleno akademikom
A. I. Oparinym.

(COLLAGEN) ~~(EMBRYOLOGY)~~

MYAGKAYA, G.L.

Change in the protein and polysaccharide composition of the heart valves at different stages of the disorganization of the connective tissue in rheumatic heart disease. Vop.revm. 3 no.1:17-24 Ja-Mr '63. (MIRA 16:4)

1. Iz laboratorii fiziko-biokhimi (zav. - prof. A.A.Tustanovskiy) i laboratorii gistokhimi (zav. - doktor med.nauk G.V.Orlovskaya) Instituta revmatizma (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I.Nesterov) AMN SSSR.
(RHEUMATIC HEART DISEASE) (CARBOHYDRATES IN THE BODY)
(PROTEINS IN THE BODY)

ROZEN, V.B.; MYAGKAYA, G.L.; FASSOKHINA, I.I.; ORLOVSKAYA, G.V.;
TUSTANOVSKIY, A.A.; UNDRITSOV, M.I. (Moskva)

Role of cortisone in changes of the reactivity of the body
in experimental modeled rheumatism. Pat. fiziol. i eksp. terap.
7 no.6:17-20 N-D '63. (MIRA 17:7)

1. Iz Nauchno-issledovatel'skogo instituta revmatizma (direktor -
deystvitel'nyy chlen AMN SSSR prof. A.I. Nesterov) AMN SSSR.

ZAYDES, A.M.; TUSTANOVSKIY, A.A. MYAGKAYA, G.L.; ORLOVSKAYA, G.L.

Formation of collagen structures during embryogeny. *Biokhimiya*
9 no.4:441-450 '64. (MIR) 1964

1. Tsentral'nyy nauchno-issledovatel'skiy institut i obshchestvennoy promyshlennosti, Moskva. Nauchno-issledovatel'skiy institut revmatizma ANU SSSR, Moskva.

YACHTMAN, I.P., ... () ...
in ... () ...
USSR ...
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... () ...

8/9/86/1/1, 1, 1

MYAGKAYA, I.P.

Mechanism of dysentery intoxication. Report No.1: Interoceptive intestinal reflexes under experimental dysenteric intoxication [with summary in English]. Biul.eksp.biol. i med. 43 no.5:77-82 My '57. (MIRA 10:10)

1. Iz laboratorii fiziologii retseptorov (zav. - deystvitel'nyy chlen AMN SSSR prof. V.N.Chernigovskiy), laboratorii patologicheskoy fiziologii (zav. - prof. V.S.Galkin) Instituta fiziologii AN SSSR imeni I.P.Pavlova (dir. - akademik K.M.Bykov) i iz kafedry propedev-tiki vnutrennikh bolezney 1-go Leningradskogo meditsinskogo instituta imeni I.P.Pavlova (zav. - deystvitel'nyy chlen AMN SSSR prof. M.D. Tushinskiy). Predstavlena deystvitel'nyy chlenom AMN SSSR M.D. Tushinskiy.

(SHIGELLA DYSENTERIAE

toxin, eff. on intestinal interoceptive reflexes after application to isolated loop (Rus))

(INTESTINES, physiol.

eff. of Shigella dysenteriae toxin on interoceptive reflexes after application to isolated loop (Rus))

MYAGKAYA, I.P.

Mechanism of dysenteric intoxication. Report No.2; Effect of dysenteric toxin and anatoxin on intestinal chemoreceptors [with summary in English]. *Biul. eksp. biol. i med.* 44 no.11:52-57 N '57 (MIRA 11:11)

1. Iz laboratorii fiziologii retseptorov (zav. - deystvitel'nyy chlen AMN SSSR V.N. Chernigovskiy), laboratorii patologicheskoy fiziologii (zav. - prof. V.S. Galin [deceased] Instituta fiziologii AN SSSR imeni akademika I.P. Pavlova (dir. - akad. K.M. Bykov) i kafedry propedevtiki vnytreennykh bolezney 1-go Leningradskogo meditsinskogo instituta imeni akademika I.P. Pavlova (zav. - deystvitel'nyy chlen AMN SSSR M.D. Tushinskiy). Predstavlena deystvitel'nyy chlenom AMN SSSR M.D. Tushinskiy).

(INTESTINES, effect of drugs on,
dysenteric toxin, in normal & immunized animals (Rus))

(SHIGELLA DYSENTERIAE,
toxin, eff. on intestinal in normal & immunized
animals (Rus))

MYAGKAYA, I.P.

Mechanism of dysenterial intoxication. Report No.3. Specificity of the effect of toxins of the enteric group on intestinal chemoreceptors [with summary in English]. Biul.eksp.biol. i med. 44 no. 12:52-57 D '57. (MIRA 11:4)

1. Iz laboratorii fiziologii retseptov (zav. - deystvitel'nyy chlen AMN SSSR V.N.Chernigvskiy), laboratorii patologicheskoy fiziologii (zav. - prof. V.S.Galkin [deceased]) Instituta fiziologii AN SSSR imeni I.P.Pavlova (dir. - akademik K.M.Bykov) i iz kafedry propedevti-ki vnutrennikh bolezney (zav. - deystvitel'nyy chlen AMN SSSR M.D. Tushinskiy) i Leningradskogo meditsinskogo instituta imeni I.P.Pavlova. Predstavlena deystvitel'nyy chlenom AMN SSSR prof. M.D.Tushinskiy.

(BACTERIA.

Enterbacteriaceae toxins, eff. of intestinal chemoreceptors, specificity of action (Rus))

(INFESTINES, effect of durgs on,

Enterobacteriaceae toxins, specificity of action on chemoreceptors (Rus))

MYAGKAYA, I.P.

Mechanism of dysentery intoxication. Report no.4: Experimental therapy of dysentery intoxication [with summary in English].
Biul. eksp. biol. i med. 45 no.2:54-58 F'58. (MIRA 11:5)

1. Iz laboratorii fiziologii retseptorov (zav. -chlen-korrespondent AN SSSR, deystvitel'nyy chlen AMN SSSR prof. V.N. Chernigovskiy), laboratorii patologicheskoy fiziologii (zav. - prof. V.S. Galkin) Inatituta fiziologii SSSR imeni akad. I.P. Pavlova (dir. - akad. K.M. Bykov) i kafedry propedevtiki vnutrennikh bolezney (zav. - deystvitel'nyy chlen AMN SSSR prof. M.D. Tushinskiy) I Leningradskogo meditsinskogo instituta imeni akad. I.P. Pavlova.

(SHIGELLA DYSENTERIA)

toxin, eff. of various drugs on exper. intoxication (Rus))

GANELINA, I.Ye.; ZIMOVAYA, N.G.; IL'INSKIY, O.B.; LEBEDEVA, V.A.;
MARTINYUK, V.K.; MERKULOVA, O.S.; MUSTYASHCHIKOVA, S.S.;
MYAGKAYA, I.P.; OSADCHIY, L.I.; POPOVA, T.V.; SEMEBENNIKOV, I.S.;
TYUTRYUMOVA, Z.I.; CHERNICHENKO, V.A.; YAROSHEVSKIY, A.Ya.

Interceptive component in the development of certain pathological
states. Trudy Inst.fiziol. 8:240-253 '59. (MIRA 13:5)

1. Laboratoriya patologicheskoy fiziologii (zaveduyushchiy - V.S.
Galkin [deceased]) Instituta fiziologii im. I.P. Pavlova AN SSSR.
(SENSSES AND SENSATION) (PATHOLOGY)

MYAGKAYA, I. P.

Thrombocytopoietic function of the bone marrow in thyrotoxic goiter. Probl. gemat. i perel. krovi no.1:18-19 '62.
(MIRA 15:7)

1. Iz kafedry fakul'tetskoy terapii (i. o. zav. - dotsent G. V. Melik-Babakhanov) i fakul'tetskoy khirurgii (zav. - prof. I. I. Neymark) Altayskogo gosudarstvennogo meditsinskogo instituta (dir. - dotsent F. M. Kolomiytsev)

(GOITER) (MARROW) (BLOOD PLATELETS)

COUNTRY : USSR
CATEGORY : Zoology
ABS. JOUR. : RZhBiol., No.25, 1958, No. 104592
AUTHOR : Byagkikh, N. V.
INST. : Altay Agricultural Institute
TITLE : Hay Fields and Pastures of the Forest Steppe of Altay
Kray.
ORIG. PUB. : Sb. stum. nauch. rabot. Altaysk. s.-kh. in-t, 1957, vyp. 6,
55-58
ABSTRACT : No abstract.

Card: 1/1

SAZANOV, B.V., kand.tekhn.nauk; MYAGKOV, A.A., inzh.

Universa. monogram of the moisture content of a saturated gas.
Prom. energ. 20 no.1:23-25 Ja '65.

(MIRA 18:4)

L 29165-66

ACC NR: AP6018889

SOURCE CODE: UR/0104/65/000/011/0036/0040

AUTHOR: Sazanov, B. V. (Candidate of technical sciences); Myagkov, A. A. (Engineer)

ORG: none

TITLE: Method of calculating the heat recovery efficiency in steam-and-gas installations

SOURCE: ³⁶Elektricheskiye stantsii, no. 11, 1965, 36-40

TOPIC TAGS: steam boiler, furnace, turbine

ABSTRACT: In steam-and-gas installations with a high-pressure steam generator or with final combustion of the turbine exhaust gases in the furnaces of ordinary steam boilers, fuel savings -- as compared with separate steam and gas installations -- are achieved by reducing the total amount of exit gases and transferring part of the heat of the high-temperature (gas) cycle to the steam cycle with its lower temperature, i.e. accomplishing so-called thermodynamic adjustment. This transfer is attained by heating (and sometimes partially evaporating as well) the feedwater with the gas-turbine exhaust gases. A more economical method of such transfer is heating the feedwater with an optimal combination of the heat of the turbine exhaust gases and the steam bled from the turbine. In this connection, the article discusses a method of calculating the change in the indexes of the steam part of steam-and-gas installation based on determining the coefficient ϵ of change in the power of the

Card 1/2

UDC: 621.181.58

L 29165-66

ACC NR: AP6018889

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steam entering the disconnected regenerative heater, which makes it possible to determine the fuel savings produced by replacing regenerative steam heaters with water economizers. The coefficient e can be calculated for any turbine in accordance with its manufacturing and operational specifications. The corresponding formulas are derived from the assumption of the constancy of the heat contribution of the live steam entering the turbine. Orig. art. has: 2 figures, 5 formulas, and 2 tables. [JPRS]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 007

Card 2/2 CC

MYAGKOV, A.M.

Factory and intrafactory planning. Sakh.prom. 28 no.1:38-40
'54. (MLRA 7:3)

1. Oktyabr'skiy sakharnyy zavod.

(Sugar industry)

MYAGKOV, A., krepil'shchik

Frame of mind is also a reserve of labor productivity. Sov.shakht.
13 no.1:24-25 Ja '64. (MIRA 17:3)

1. Shakhta imeni Ordzhonikidze, Novokuznetsk.

L 46610-66 EVT(m)/T WE

ACC NR: AP6025232

SOURCE CODE: RU/0104/66/000/006/0029/0035

AUTHOR: Sazanov, B. V. (Candidate of technical sciences); Myagkov, A. A. (Engineer)

Orig: none

TITLE: Calculating the power indices of steam-gas installations

SOURCE: Elektricheskiye stantsii, no. 6, 1966, 29-35

TOPIC TAGS: gas turbine, steam turbine, gas fuel, fuel thermal stability

ABSTRACT: A method is proposed for analyzing fuel economy in steam-gas installations with conventional and high-pressure steam generators. Fuel economy in steam-gas units is the result of two approximately equivalent

factors: operating the gas cycle at a higher temperature than the steam cycle; reducing losses while the heat from the fuel is being transferred to the working sections of the power cycles (reducing the total amount of escaping gases):

$$\frac{G_t}{P_t} \quad \frac{G_g}{P_g} \quad \frac{G_s}{P_s}$$

where G is the rate of flow of escaping gas and P is power, the indices t, g, and s indicating total, gas turbine and steam turbine respectively. The method proposed in this paper accounts for both of these sources of fuel economy and may be used for determining the optimum conditions for a gas-turbine installation. The method is used to analyze some of the power indices of a gas-turbine installation with a conventional steam generator. Orig. art. has: 6 figures, 9 formulas, and 3 tables. [JPRS: 36,741]

Card 1/1 SUB CODE: 10, 21/ mjs UDC: 621.11.001.1

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B

S/133/63/000/004/005/011
A054/A126

AUTHORS: Meandrov, L. V., Golovanenko, S. A., Bykov, A. A., Myagkov, A. P.,
Korotkevich, B. M., Borisov, A. N., Kossovskiy, L. D., Gindin, A. Sh.

TITLE: Experimental rolling of bimetal sheets

PERIODICAL: Stal', no. 4, 1963, 343 - 346

TEXT: Tests were carried out at the Chelyabinskiy metallurgicheskiy zavod (Chelyabinsk Metallurgical Plant) with the participation of N. P. Shohukin, V. D. Nikitin, S. A. Zuyev, V. P. Nikitin, N. N. Danilovich, N. V. Zerchaninov, V. V. Shturts, V. A. Ustimenko, V. V. Silant'yev, to establish the technology of bi-metal sheet production. Symmetric (4-layer, 150 - 220 mm thick) and asymmetrical (3-layer, 135 mm thick) sheets were produced. The nickel coating was applied in some tests by the standard electrolytic method, in some tests, however, a new process was employed with a special apparatus, involving the melting of a 1.5-mm diameter nickel wire, which was thereupon applied to the sheet surface by pulverization. Prior to this the surface to be coated was shot-blasted. A 600 x x 1,750 mm sheet could be coated by this process with a 40 μ thick nickel layer

Card 1/2

Experimental rolling of bimetal sheetsS/133/63/000/004/005/011
A054/A126

in 20 minutes. The new method proved more advantageous than the conventional one: it required less time and no pickling. The pulverizing apparatus is simple, inexpensive and easily adjustable to automation. After coating the bimetal sheets were welded air-tight on the perimeter and the end surfaces. The rolling tests were made on a 2,300-mm stand at Chelyabinsk by the standard method. The welding seams prevented warping and lamination of the bimetal sheets. The tightness and the strength of the seams depended on the surface quality of the stainless and carbon steels composing the sheet and on the assembly and welding of the sheet layers. The deformation of the various layers in rolling was not uniform. This deviation in deformation was characterized by an experimental coefficient that in case of 4 - 10 mm thick sheets depended in the first place on the metal grade of the coating layer, but was independent of the total reduction in the investigated range of deformations. For sheets of Ct.3CH/St.3sp + X 18 H10T / Kh18NiOT grades the average coefficient value was 0.94 - 0.96, for sheets of St.3sp + 1X 13/Kh13 steel grades: 1.03 - 1.05. There are 4 figures and 1 table.

ASSOCIATION: TsNIICChM, Chelyabinskiy NIIM (Chelyabinsk NIIM, ChMZ)

Card 2/2

MIKHALEV, V.G.; MYAGKOV, A.T.

Using an economically advantageous construction of mine
supports. Shakht.stroi. no.1:19-21 Ja '60.
(MIRA 13:5)

1. Karagandinskiy institut Giproulegormasha.
(Mine timbering)

MYAGKOV, A.T., inzh.; USATOV, G.A., inzh.

Ballasting tractor unit. Mekh.i avtom.proizv. 15 no.11:44-45
N '61. (MIRA 14:11)

(Railroads--Ties) (Tractors)

MYAGKOV, A.T., inzh.; USATOV, G.A., inzh.

Cutter-loaders for the complete mechanization of loading and
haulage operations in the construction of open pits. Shakht.
stroi. 6 no.4:12-14 Ap '62. (MIRA 15:4)

1. Giprouglegormash.
(Mining machinery)

MYAGKOV, A.T., inzh.; USATOV, G.A.

Self-propelled ballast layer. Stroiki dor.mash. 7 no.2:19
F '62. (MIRA 15:5)
(Railroads--Equipment and supplies)

MYAGKOV, A.T., inzh.

Calorimetric device for determining the heat of the hydration of
cement. Nauch. soob. IGD 19:138-147 '63. (MIRA 17:2)

MYAGKOV, A.T., inzh.

Determining the hydration heat of portland cement in concrete with
hardeners. *Est. i zhel.-bet.* 9 no.12:561-565 D '63. (MIRA 17:2)

MYAGKOV, A.T., inzh.

Heat engineering calculations for concrete supports erected
in a zone of frozen ground. Shakht. stroi. 7 no.11:5-7 N°63
(MIRA 17:7)

1. Institut gornogo dela imeni A.A. Skochinskogo.

GUSEV, Yu.Ye, inzh.; MYAGKOV, A. Ye., inzh.; KARYAKIN, Yu.A., inzh.

Methods for designing membrane-type heating filters. Trudy
NIITsment no.12:32-50 '59. (MIRA 13:5)
(Air preheaters)

KHOKHLOV, V.K., inzh.; MYAGKOV, A.Ye., inzh.

New design for cyclone heat exchangers. Nauch. soob. NIITsmenta
no.11:9-11 '61. (MIRA 15:2)
(Heat exchangers)

MYAGKOV, A.Ye., inzh.; GUSEV, Yu.Ye., inzh.; FISHGOYT, L.Ye., inzh.;
TRUTNEV, V.A., inzh.

Intensifying the system of burning keramzit "gravel" and increasing
the economy of operating rotary kilns. Stroi. mat. 9 no.4:17-19
Ap '63. (MIRA 16:5)

(Keramzit) (Kilns, Rotary)

MYAGKOV, B.K., inzhener.

Installing internal combustion engines with use of a dynamometer
for power load distribution. Sudostroenie 23 no.6:32-35 Je '57.
(MIRA 10:7)

(Dynamometer) (Marine engines)

KUPRYASHIN, N.N., kand.tekhn.nauk; MYAGKOV, D.Ya., inzh.

Improving the design of hydraulic screw tools. Trakt. 1 sel'khoz Mash.
no.11:46-48 H '58. (MIRA 11:11)

(Hydraulic machinery)

MYAGKOV, D. YA

KUPRYANIN, N.N., kand. tekhn. nauk; MYAGKOV, D.Ya., inzh.

Aspects of the development of assembly work mechanization. Vest.
rash. 38 no.4:19-23 Ap '58. (MIRA 11:3)

(Screwdrivers)

KUPRYASHIN, M.N., kand.tekhn.nauk; MYAGKOV, D.Ya., inzh.

Multiplo-spindle hydraulic nut driver. Trakt.i sel'khozmasb.
no.8:38-40 Ag '59. (MIRA 12:11)
(Bolts and nuts)

MYAGKOV, G.M., inshener

Making large steel bands. Tsement 21 no.5:27-30 S-0 '55.
(Kilns, Rotary) (MIRA 9:1)

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(Agricultural machinery)

MYAGKOV, G.T.

Machines for grass mowing and hay racking. Biul.tekh.-ekon.inform.-
Gos.nauch.-issl.inst.nauch.i tekh.inform. 16 no.4:61-63 '63.
(MIRA 16:8)

(Mowing machines)

MYAGKOV, G.T.

The ZhB-15 and ZhVN-7-14 high-duty wide-row harvesters. Biul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 16 no.6:
64-66 '63. (MIRA 16:8)

(Harvesting machinery)

MYAGKOV, G.T., inzh.

The SN-75 semimounted hitch. Trakt. i sel'khoz mash. 33 no.7:
35-36 J1 '63. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokho-
zyaystvennogo mashinostroyeniya.

MYAGKOV, G.T., inzh.

The LDP-10 and LOD-10 wide-range harrow plows. Trakt. i sel'khoz mash.
33 no.8:40-41 Ag '63. (MIRA 1:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya.

MYAGKOV, G.T., insh.

The PPN-8-35 semimounted eight-bottom plow. Trakt. 1 sel'khozmasb.
33 no.9:36 S '63. (MIRA 10:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyay-
stvennogo mashinostroyeniya.
(Plows)

MYAGKOV, I.F.

Epileptic delirium. Trudy Vor. med. inst. 51:147-150 1963. (MIRA 18:10)

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MYAGKOV, I. YA.- "Experimental Investigation of the Electric Properties of Pressed Lumber Made of Birch, Linden Tree, Alder tree, Aspen wood, and Oak." Min of Higher Education USSR, Leningrad Order of Lenin Forestry-Engineering Acad imeni S. M. Kirov, Leningrad, 1955 (Dissertations For Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

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Production and technical conference of the Main Urals Administration of Industrial Construction. Stroi.prom.32 no.1:46-47 Ja '54.
(MLRA 7:2)

(Ural Mountain region--Construction industry--Congresses)
(Congresses--Construction industry--Ural Mountain region)

MYAGKOV, K.N., inzhener; SVETLOV, S.I., inzhener; POCHTAREV, F.K.,
inzhener; TURKIN, V.S., kandidat tekhnicheskikh nauk;
MAKARICHEV, V.V., kandidat tekhnicheskikh nauk; TESLER, P.A.;
KRIVITSKIY, M.Ya., kandidat tekhnicheskikh nauk.

Large-panel apartment houses built with honeycombed concrete.
Stroi.prom.32 no.2:6-13 F '54. (MLRA 7:2)

1. Glavuralpromstroy (for Myagkov, Svetlov and Pochtarev).
2. Tsentral'nyy nauchno-issledovatel'skiy institut promysh-
lennykh sooruzheniy (for Turkin, Mararichev, Tesler and Krivitskiy).
(Apartment houses) (Concrete construction)

MYAGKOV, K.N., inzhener; MOSKVIN, G.V., inzhener; BRUKOV, A.T., inzhener;
POCHTAREV, P.K., inzhener; PESHKOV, M.F., inzhener; KRYSHDEVICH, V.A.,
inzhener; MAKARYCHEV, V.V., kandidat tekhnicheskikh nauk; KUDRYASHOV,
P.T., kandidat tekhnicheskikh nauk; KRIVITSKIY, M.Ya., kandidat
tekhnicheskikh nauk; MATSELINSKIY, R.N., kandidat tekhnicheskikh
nauk TESLER, P.A., kandidat tekhnicheskikh nauk

Large reinforced foam concrete panels for heated beamless floors
of industrial buildings developed by the Central Scientific Re-
search Institute of Construction and the Northern Urals Heavy
Construction Trust. Rats. i izobr. predl. v stroi. no.81:18-19
'54. (MIRA 8:6)

1. Glavuralpromstroy (for Myagkov, Moskvina, Brukov) 2. Sevural-
tyazhstroy (for Pochtarev, Peshkov, Kryshdevich) 3. Tsentral'nyy
nauchno-issledovatel'skiy institut promyshlennykh sooruzheniy
(for Makarychev, Kudryashov, Krivitskiy, Matselinskiy, Tesler)
(Floors, Concrete)

MYAGKOV, M.A.

Problems of material and technical supply. Sakh.prom. 28 no.5:5-7
'54. (MIRA 7:9)

1. Oktyabr'skiy sakharnyy zavod.
(Sugar industry--Equipment and supplies)

SOV/137-58-7-14018

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p5 (USSR)

AUTHOR: Myagkov, M. I.

TITLE: The Ore Dressing Plant of Kovdor. (Kovdorskaya obogatitel'naya fabrika)

PERIODICAL: [Tr.] Vses. n.-i. i proyekt. in-ta mekhan. obrabotki poleznykh iskopayemykh, 1957, Nr 102, pp 121-133

ABSTRACT: The magnetic concentration process is conducted in 2 stages. The first stage, in which the size is in the 25-0 mm range, consists of dry magnetic separation, in which 22% of the dump tailings, containing 8% Fe, are separated. The magnetic product is reduced to 0.2-mm size, at which wet magnetic concentration is performed, with separation of dump tailings and final concentrates containing 62% Fe. A diagram of the plant structures, sections through the buildings for stage I and II, III and IV cominution, the topographical disposition of the stages of cominution and their interrelationship, cross sections through the concentration building, the drying plant, and the crushed-ore and concentrate dumps, are provided. 1. Ores--Processing 2. Industrial plants--Organization A. Sh.

Card 1/1

MYAGKOV, M.I.

Planning of Krivoy Rog ore dressing plants. Obog. rud 4 no.4:10-22
'59. (MIRA 14:8)

(Krivoy Rog Basin--Ore dressing)

MYAGKOV, M.I.

Connection between flowsheets and structural design in the
planning of ore dressing plants. Obog. rud 5 no.3:18-23
'60. (MIRA 14:8)
(Ore dressing--Equipment and supplies)

MIANKOV, M.I.

Technical and economic efficiency and flowsheets in dressing iron
quartzites from the Kursk Magnetic Anomaly. Gor.zhur. no.6:67-69
Je '60. (MIA 14:2)

1. Institut Mekhanobr, Leningrad.
(Kursk Magnetic Anomaly-- quartzites) (Ore Area in)

MYAGKOV, M.I., insh.

Investigations of the parameters of the unit for pneumatic
transportation of rock. Transp.stroi. 12 no.10:48-50 0 '62.
(MIRA 15:12)
(Pneumatic conveying)(Rock--Transportation)

MYAGKOV, M.I., gornyy inzh.

**Use the potentials of the Kovdor ore dressing plant. Ger. zhur. no.6:
58-59 Je '65. (MIRA 18:7)**

**1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut
mekhanicheskoy obrabotki poleznykh iskopayemykh, Leningrad.**

MYAKOV, N. I.

Equivalent of ...
the drawing of ...

MYAGKOV. M.I.; BOLOSHIN, N.N.; IGRUNOV. D.V.

Design, construction, and starting operations at Ore Dressing Plant
No.2 of the Krivoy Rog Southern Mining and Ore Dressing Combine.
Trudy Mekhanobr: no.133:148-177 '63.

(MIRA 18:10)

MYAGKOV, M.I.

Some characteristics of the technological process for dressing
magnetite. Gor. zhur. no. 11. 62-7. 1966. (MIRA 17.6)

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mekhanicheskoy obrabotki poleznykh iskopaemykh, Leningrad.

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tekh.red.

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nogo aktivista. Moskva, Profizdat, 1963. 52 p.
(MIRA 16:12)

1. Predsedatel' soveta universiteta profsoyuznogo aktivista go-
roda Novogradovka Donetskoy oblasti (for Sapach).
(Novogradovka (Donetsk Province))--Trade unions--Officers)